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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/674,427	10/01/2003	John David Lilley	P68217US1	5662

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WASHINGTON, DC 20005-3960

EXAMINER
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YEE, DEBORAH

ART UNIT	PAPER NUMBER
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1742

DATE MAILED: 09/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/674,427	<b>Applicant(s)</b> LILLEY, JOHN DAVID	
	<b>Examiner</b> Deborah Yee	<b>Art Unit</b> 1742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 26 July 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1, 3 to 8 and 10 to 16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 3 to 8 and 10 to 16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 and 3 to 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese patent 4-6247 .

3. Claims 1, 3 to 8 and 10 to 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Floreen (US Patent 3,294,527) or Floreen (US Patent 3,318,690).

4. The English abstract of JP'247, claim 3 in column 6 of Floreen'690, and claim 2 of column 6 of Floreen'247, each teach an iron alloy having a composition with constituents whose wt % ranges overlap those recited by the claims; such overlap renders applicant's composition prima facie obvious because it would be obvious to one of ordinary skill in the art to select the claimed alloy wt% ranges from the broader disclosure of the prior art because the prior art has similar high - temperature resistant properties, see MPEP 2144.05,

5. Even though a graphite -free microstructure as recited by the claims is not taught by prior art, such would be expected since the compositional limitations are closely met, and in absence of proof to the contrary.

6. Also the Floreen patents teach age hardening iron alloy. Even though precipitation of Ni<sub>3</sub>(Nb,Al, and/or Nb) or Mo<sub>2</sub>C as recited by claims 7,8 and 10 to 16 are

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not taught, such would be expected since compositional limitations are closely met and in absence of proof to the contrary.

### ***Response to Arguments***

7. Applicant's arguments filed 7-26-05 have been fully considered but they are not persuasive. It was submitted that JP'247 and Floreen'527 and Floreen'690 do not disclose pressure-containing components comprising an air-melted, substantially graphite and nitrogen –free cast alloy of the claimed composition. It is the examiner's position that the English abstract of JP'247 discloses a steel useful for waste incineration furnace boiler which would be patentably equivalent to a cast exhaust system. Also the Floreen patents teach using alloy in a high strength structural application which would broadly include gas turbine an engine components. Moreover, JP'247 and Floreen alloy composition has constituents whose wt% ranges overlap those recited by the claims. Since compositional limitations are closely met, then substantially free graphite and nitrogen would be expected in absence of proof to the contrary

4. Applicant stated that JP'247 alloy contains 0.05 to 0.4% N which falls outside the claimed N range of 0.02%max. It is the examiner's position that the English abstract of JP'247 discloses "**one** or 2 kinds of 0.2 to 0.5% Cu and 0.05 to 0.4%N"; hence N is optional and need not be present.

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5. Applicant stated that JP'247 and Floreen patents do not disclose any amount of P (phosphorus), while claim 1 requires P in the amount of 0.01 to 0.08%. It is the examiner's position that prior art alloy contains P as an inevitable impurity and kept at conventional low levels that would suggest applicant's claimed range of 0.01 to 0.08%P. Moreover, similar to prior art, applicant does not appear to positively add P but rather treat it as an inevitable impurity. See examples, representative of the present invention, on pages 16 to 18 of applicant's specification containing P at 0.08%max and 0.04%max with a lower limit of zero rather than the 0.01% as recited by the claims. Hence claims would not patentably distinguish over prior art.

6. Even though prior art does not teach specific examples which meet the claimed composition, such would not be a patentable difference since the rejection is based on obviousness and not anticipation.

### ***Conclusion***

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Deborah Yee whose telephone number is 571-272-1253. The examiner can normally be reached on Monday-Friday from 6:00 to 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 571-272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Deborah Yee  
Primary Examiner  
Art Unit 1742

dy